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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/689,613

10/22/2003

Takashi Suzumura

032218-018

4820

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7590

07/28/2005

BUCHANAN INGERSOLL PC
(INCLUDING BURNS, DOANE, SWECKER & MATHIS)
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EXAMINER

LARSON, LOWELL A

ART UNIT

PAPER NUMBER

3725

DATE MAILED: 07/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/689,613	Applicant(s) SUZUMURA ET AL.	
	Examiner Lowell A. Larson	Art Unit 3725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7 to 32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7 to 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/783,992.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/22/2003</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 7, 8, 11, 16 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Heinrich et al. (IDS citation).

Heinrich et al. discloses fabrication of a one-piece planetary gear housing by cutting and shaping a flat workpiece in the manner required by these claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9, 10, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinrich et al. in view of Cox.

These claims require forming a groove as a bending guide. Cox discloses grooves 10, 11, 12 used as bending guides, and advises that the bending is facilitated and a durable joint is obtained.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to form V-grooved bending guides for bending the flanges of the Heinrich et al. gear carrier, following the suggestion of Cox, in order to facilitate making durable joints.

5. Claims 12 to 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinrich et al. in view of Sadakata et al.

These claims recite the use of mandrels. Sadakata et al. discloses pressing flanges 5 with the use of a mandrel 15, and advises that an accurate product is obtained.

It would have been obvious to press the flanges of the Heinrich et al. gear carrier with the use of mandrels, following the suggestion of Sadakata et al., in order to increase the accuracy of the product. The order in which the holes 12 of Heinrich et al. are formed, as recited in Claims 13 and 15, is considered to be an obvious exercise of mechanical design absent a disclosure of criticality in the solution of stated problems with any specific order of performing the fabrication steps.

6. Claims 20, 23, 25, 27 to 30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinrich et al. in view of Kranz et al.

These claims require forming the gear carrier from a tubular workpiece. Kranz et al. discloses forming a hub member of a wheel from a tubular workpiece by bulging the center and bending the end portions inwardly, and advises that the hub is more economically formed without sacrificing strength or rigidity.

It would have been obvious to one skilled in the art to form the gear carrier hub of Heinrich et al. from a tubular workpiece, following the suggestion of Kranz et al., rather than a flat plate in order to economize the production.

7. Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinrich et al. in view of Franz et al. as applied to Claim 20 above, and further in view of Cox as applied to Claim 10 in Paragraph 4 above.

8. Claims 24, 26 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinrich et al. in view of Kranz et al. as applied to Claim 20 above, and further in view of Sadakata et al. as applied to Claim 12 in Paragraph 5 above.

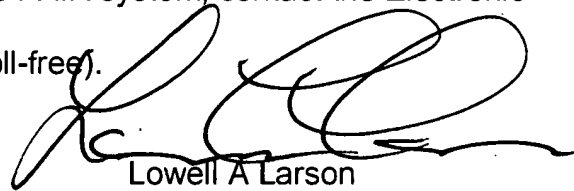
Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lee et al. further shows the state of the art.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lowell A. Larson whose telephone number is 571 272-4519. The examiner can normally be reached from 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached at 571 272-4419. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'L. Larson', with a large, stylized flourish at the end.

Lowell A Larson
Primary Examiner
Art Unit 3725

LAL
July 22, 2005